

## REMARKS

### **Summary of the Examiner's Actions**

The Office Action indicated that prosecution of the present application has been reopened in view of the appeal brief filed on September 10, 2007. The Office Action further set forth new ground of rejection. Applicant acknowledges the new ground of rejection and appreciates the reopening of the prosecution of the present application.

The Office Action rejected Claims 1 and 3-12 under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious under Lee, U.S. Patent Number 6,637,376 ("Lee"), in view of Price et al., U.S. Patent Number 4,965,552 ("Price et al."). Applicant acknowledges the alternative rejections under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a). However, it is unclear as to how the Office Action intended the rejection of the claims to read. For purposes of this response, the rejection is interpreted as:

Claims 1 and 3-12 being rejected under 35 U.S.C. § 102(e) as anticipated by Lee;

Claims 1 and 3-12 being rejected under 35 U.S.C. § 102(e) as anticipated by Price *et al.*; and

Claims 1 and 3-12 being rejected under 35 U.S.C. § 103(a) as being obvious under Lee in view of Price *et al.*

### **Reopening of Prosecution**

In reopening the prosecution the Office Action stated in part:

In view of the appeal brief filed on 9/10/07, PROSECUTION IS HEREBY REOPENED. A new ground of rejection set forth below. Note that since prosecution is reopened, the pending set of claims is the one submitted on 8/30/06, to which Applicant amended the claims to necessitate finality.

Applicant respectfully requests that the finality of the present office action be reconsidered and withdrawn. To wit, the new ground of rejection set forth was not necessitated by Applicant's amendment of the claims.

The prosecution history for the present application includes:

April 21, 2004	Patent Application Filed
Nov. 10, 2005	Election/Restriction Requirement mailed
Feb. 10, 2006	Response to Election/Restriction Requirement filed with 2 month extension of time; Claims 1-12 elected
May 18, 2006	Non-Final Office Action mailed; Claims 1-12 rejected under 35 U.S.C. § 102(b) as being anticipated by Anderson <i>et al.</i> , U.S. Patent No. 6,232,880 ("Anderson")
Aug. 30, 2006	Response to Non-Final Office Action filed; Claims 1 and 10 amended, Claim 2 canceled, distinguishing arguments made
Nov. 9, 2006	Final Office Action mailed; Claims 1 and 3-12 rejected under 35 U.S.C. § 102(b) as being anticipated by Anderson; Applicants' arguments in previous response deemed "not persuasive"
March 9, 2007	Response to Final Office Action filed; Claim 1 amended, distinguishing arguments made
March 20, 2007	First Advisory Action mailed; Amendment of Claim 1 filed March 9, 2007 not entered
April 9, 2007	Further response to Final Office Action filed; Claims 1 and 3-12 reflect amendments made ONLY on Aug. 30, 2006
April 17, 2007	Second Advisory Action mailed
May 9, 2007	Notice of Appeal filed
Sept. 10, 2007	Appeal Brief filed with 2 month extension of time

Dec. 11, 2007      Final Office Action mailed

Section 706.07(a) of the Manual of Patent Examining Procedure (MPEP) sets forth the basis for a final rejection on a second action. Specifically, the MPEP states, in part “[u]nder present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant’s amendment of the claims, nor based on information submitted in an information disclosure statement ...”

The present Office Action indicates that the amendments made to the claims on 08-30-06, necessitated the new grounds of rejection. Applicants respectfully disagree. As indicated by the prosecution history set forth, such claims have been examined at least twice times with the same result. Specifically, the Final Office Action mailed on 11-09-06, and the Second Advisory Action mailed on 04-17-07 each addressed the claims as amended on 08-30-06.

Because the new ground for rejection is now being asserted after several actions following the subject claim amendments, it is respectfully submitted that the new ground of rejection is based, not on such claim amendments, but as a result of the appeals process. Therefore, it is requested that the finality of the present office action be reconsidered and withdrawn.

## **Rejections under 35 U.S.C. § 102(e)**

### *1. The Law of Anticipation*

A person shall be entitled to a patent unless the invention was described in - (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and

was published under Article 21(2) of such treaty in the English language.

35 U.S.C. §102(e). Section 2131 of the MPEP describes the basis for anticipation under 35 U.S.C. § 102. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

## 2. *The Rejection of Claims 1 and 3-12 under Lee and Price et al.*

### a. *The Rejection*

In the rejection of Claims 1 and 3-12, the examiner stated:

For claim 1, Lee teaches an apparatus for controlling [an] animal comprising an animal collar assembly (col. 2, lines 62-65); a detector 100 for detecting a transmitted signal indicating the detector is located within a first zone (col. 2, lines 30-65, col. 3, lines 13-50); a correction signal generator 10, 110 coupled with said detector and configured to apply a first sequence of correction signals transmitted to said animal for controlling said animal (col. 2, lines 20-22, col. 3, lines 1-13, 52-67); wherein said correction signal generator is further configured to apply a second sequence of correction signals transmitted to said animal for controlling said animal and wherein said second sequence is different from said first sequence (col. 3, lines 52-67, col. 4, lines 1-19); wherein said correction signal generator is further configured to apply said second sequence of correction signals if said animal does not leave said first zone in response to said first sequence of correction signals after a period of time (col. 2, lines 20-22, col. 3, lines 1-13, 52-67, different intensity is applied in the second correction signals once determination that the animal has not moved since applying the first correction signals). In addition, it appears that Lee teaches a random time interval generator for randomizing the time intervals between said correction signals in said second sequence of correction signals. See fig. 3 and col. 5, lines 15-20, t<sub>1</sub> and t<sub>2</sub> (bottom graph) are random time and not

constant (top graph). Random time interval produces different duty cycle, hence, varying intensity.

However, if this is not the case, then Price et al. teach in the same field of endeavor of animal control/training as Lee, in which Price et al. employ a random time interval generator (col. 7, lines 1-25) so that the animal would not be accustomed to repeated stimulus. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a random time interval generator as taught by Price et al. in the apparatus of Lee in order to prevent the animal to become accustomed to the stimulus. KSR International Co. v. Teleflex Inc., 127 S. Ct. 1727, 1739, 1740, 82 USPQ2d 1385, 1395, 1396 (2007).

For claim 3, again, as mentioned in the above, Lee appears to be teaching said second sequence of correction signals comprises a randomized sequence of signals (col. 4, lines 58-68.. col. 5, lines 1-53). However, if this is not the case, then as mentioned in the above, Price et al. teach a randomized sequence of signals (col. 4, lines 1-10, col. 5, lines 65-68, col. 6, lines 1-68, col. 7, lines 1-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a random time interval generator as taught by Price et al. in the apparatus of Lee so that said second sequence of correction signals comprises a randomized sequence of signals in order to prevent the animal to become accustomed to the stimulus. KSR International Co. v. Teleflex Inc., 127 S. Ct. 1727, 1739, 1740, 82 USPQ2d 1385, 1395, 1396 (2007).

For claim 4, as mentioned in the above, Lee appears [to] be teaching wherein said randomized sequence of signals comprises random intervals between application of each successive signal in said randomized sequence of signals (col. 4, lines 58-68, col. 5, lines 1-53). However, if this is not the case, then as mentioned in the above, Price et al. teach a randomized sequence of signals (col. 4, lines 1-10, col. 5, lines 65-68, col. 6, lines 1-68, col. 7, lines 1-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a random time interval generator as taught by Price et al. in the apparatus of Lee so that said randomized sequence of signals comprises random intervals between application of each successive signal in said randomized sequence of signals in order to prevent the animal to become accustomed to the stimulus. KSR

International Co. v. Teleflex Inc., 127 S. Ct. 1727, 1739, 1740, 82 USPQ2d 1385, 1395, 1396 (2007).

For claim 5, both Lee and Price et al. teach wherein said correction signal generator is configured to transmit at least one sound in the audible range of said animal as said first sequence of correction signals and as said second sequence of correction signals (col. 4, lines 21-32 of Lee and col. 3, lines 40-45 of Price et al.).

For claim 6, both Lee and Price et al. teach wherein said correction signal generator is configured to transmit an electrical stimulation to said animal in said first sequence of correction signals and in said second sequence of correction signals (col. 4, lines 21-32 of Lee and col. 3, lines 40-45 of Price et al.).

For claim 7, Lee as modified by Price et al. (emphasis on Lee) further teaches wherein prior to generation of said second sequence of correction signals, said correction signal generator is configured to generate successive sets of correction signals wherein each of said successive sets of correction signals has a voltage magnitude greater than the immediately preceding set of corrections signals (col. 5, lines 22-60).

For claim 8, Price et al. further teach wherein each of said signals in said first sequence of correction signals is separated by a separation interval and wherein said separation interval decreases with each successive signal of said first sequence of correction signals (col. 7, lines 1-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a random time interval generator, wherein each of said signals in said first sequence of correction signals is separated by a separation interval and wherein said separation interval decreases with each successive signal of said first sequence of correction signals as taught by Price et al. in the apparatus of Lee in order to prevent the animal to become accustomed to the stimulus. KSR International Co. v. Teleflex Inc., 127 S. Ct. 1727, 1739, 1740, 82 USPQ2d 1385, 1395, 1396 (2007).

For claim 9, Lee as modified by Price et al. (emphasis on Lee) further teaches wherein said detector is further configured to determine a period of time in said first zone of detection of said transmitted signal

indicating said detector is located within said first zone (col. 2, lines 30-65).

For claim 10, Lee as modified by Price et al. (emphasis on Lee) further teaches wherein said generator is configured to apply said sequence of correction signals if said time exceeds a predetermined period of time (col. 2, lines 20-22, 30-65, col. 5, lines 1-32).

For claim 11, Lee as modified by Price et al. (emphasis on Lee) further teaches wherein said detector for detecting said transmitted signal is configured to detect a strength of said transmitted signal and wherein said strength of said transmitted signal is related to positioning within said first zone (col. 2, lines 43-61).

For claim 12, Lee as modified by Price et al. (emphasis on Lee) further teaches wherein said correction signal generator utilizes said strength of said transmitted signal to determine the magnitude of the initial correction signal applied (col. 2, lines 43-67, col. 3, lines 1-13).

*b. Applicant's Response*

Claims 1 and 3-12 under Price et al.

While the Office Action has rejected Claims 1 and 3-12 under 35 U.S.C. §102(e) as being “anticipated by ... Lee .. in view of Price et al.”, there is no rationale provided for such a rejection under Price *et al.*, standing alone. To wit, the element for which the Price *et al.*, reference is cited is limited to the random time interval generator, and limitations associated therewith. Accordingly, it is respectfully requested that the rejection of Claims 1 and 3-12 under 35 U.S.C. §102(e) as being anticipated by Price *et al.*, be reconsidered and withdrawn.

Claims 1 and 3-6 under Lee

With respect to the rejection under Lee, Lee teaches an apparatus and method for producing a variable intensity static stimulation. More specifically, Lee teaches variation of the duty cycle of a periodic signal having a constant amplitude and a constant duration. (*Lee*, col. 2, lines 17-29). Lee teaches detecting an event, delivering a

warning signal, and then delivering a deterrent signal. (*Lee*, col. 4, lines 42-57). *Lee* further teaches measuring a time delay  $t_5$  between detected events in order to determine whether the subsequent deterrent signal is to be increased, decreased or delivered at the same intensity as the immediately previous deterrent signal. (*Lee*, col. 5, lines 33-53). When two events are detected within a predefined time period, indicating that the most recent deterrent signal has been ineffective, the intensity of the deterrent signal is increased as set forth. If the time interval is greater than the predefined time period, the intensity of the deterrent signal is set to the initial intensity, which may be the same as or a decrease from the most recent deterrent signal, if such were increased as discussed above. When the intensity of the deterrent signal is increased, it is increased at a calculated, predefined rate. Further, each deterrent signal is delivered in response to a detected non-desirable behavior.

The Office Action refers to “fig. 3 and col. 5, lines 15-20,” and opines that “ $t_1$  and  $t_2$  (bottom graph) are random time and not constant (top graph). Random time interval produces different duty cycle, hence, varying intensity.” However, it is respectfully submitted that  $t_1$  and  $t_2$  do not refer to time intervals between signals, but between the “on” and “off” periods of the signal pulses. This is described in the subject reference in order to vary the intensity of the signal, not the timing. Even in this description, it is respectfully submitted that such variation is not random.

The Office Action concludes that “[h]owever, if this is not the case, then Price *et al.* teach in the same field of endeavor...” It is respectfully submitted that the Office Action is not settled that *Lee* anticipates every element of the present invention as claimed. Modification of *Lee* with Price *et al.* is discussed below with respect to the rejection of the claims under 35 U.S.C. § 103(a).

Accordingly, it is respectfully suggested that *Lee* fails to teach “each and every element as set forth in the claim” as required by *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Therefore, it is respectfully

requested that the rejection of Claims 1 and 3-6 under 35 U.S.C. §102(e) as being anticipated by Lee be reconsidered and withdrawn.

Claims 7-12 under Lee

With respect to Claims 7-12, the Office Action has cited “Lee as modified by Price et al.” in each rejection. It is respectfully submitted that such rejection is inappropriate under 35 U.S.C. §102(e).

MPEP §706.02(V) states in part: “... for anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present.” Further, as set forth above, MPEP §2131 describes the basis for anticipation under 35 U.S.C. § 102. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

In the instant rejection, the Office Action has used a combination of references in an attempt to establish anticipation. Thus, as admitted in the Office Action, Lee fails to teach “each and every element as set forth in the claim” as required by *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Accordingly, it is respectfully requested that the rejection of Claims 7-12 under 35 U.S.C. §102(e) as being anticipated by Lee be reconsidered and withdrawn.

### **Rejections under 35 U.S.C. § 103(a)**

#### **1. The Law of Obviousness**

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the

differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35 U.S.C. §103(a). In order to support a rejection under 35 U.S.C. § 103(a), “the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.” MPEP § 2142, pg. 2100-121, 8th ed. “To reach a proper determination under 35 U.S.C. § 103(a), the examiner must step backward in time and into the shoes worn by the hypothetical ‘person of ordinary skill in the art’ when the invention was unknown and just before it was made.” *Id.* The first element in establishing a *prima facie* case of obviousness is that “there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings.” MPEP § 2143, pg. 2100-122, 8th ed. The second element is that there “must be a reasonable expectation of success.” *Id.* The third element is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” *Id.*

The relevant facts for finding obviousness relate to (1) the scope and content of the prior art, (2) the level of ordinary skill in the field of the invention, (3) the differences between the claimed invention and the prior art, and (4) any objective evidence of nonobviousness such as long felt need, commercial success, the failure of others, or copying. *Graham v. John Deere Co.*, 148 U.S.P.Q. 459, 467 (1966; *see Continental Can Co. v. Monsanto Co.*, 20 U.S.P.Q.2d 1746, 1750-51 (Fed. Cir. 1991). The Supreme Court in *Graham* stated that “the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.” *Graham*, 383 U.S. at 17, 148 U.S.P.Q. at 467. The *Graham* court further stated that “[s]uch secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be

utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy.” *Id.*

2. *The Rejection of Claims 1 and 3-12 under Lee and Price et al.*

a. *The Rejection*

The rationale for the rejection of Claims 1 and 3-12 is set forth above with respect to the rejection of Claims 1 and 3-12 under 35 U.S.C. §102(e).

b. *Applicant's Response*

Claims 1 and 3-12

As discussed above with respect to the rejection of the claims under 35 U.S.C. §102(e), Lee teaches variation of intensity, not timing. Stimulus signals are delivered to the pet upon detection of an undesired behavior and the administration of a warning signal. As suspected by the Office Action, Lee fails to teach a random time interval generator.

Price *et al.*, teaches a repellent apparatus and a detection circuit a microphone disposed in the vicinity of the repellent apparatus for detecting the presence of a particular species of animal. Specifically, Price *et al.*, teach:

A second Schmidt trigger oscillator circuit 92 is provided that generates a five second cycle signal, in the preferred embodiment, to a second counter of the integrated circuit 85. The second counter includes a number of counter outputs Q<sub>B</sub>, Q<sub>C</sub> and Q<sub>D</sub>, each of which are connected to the base of a respective transistor 91B-91D, which have their collectors connected to a corresponding connection point, 31B-31D, for frightening devices 90B-90D. The counter outputs Q<sub>B</sub>, Q<sub>C</sub> and Q<sub>D</sub>, have cycle times of approximately ten seconds, twenty seconds and forty seconds, respectively, in the preferred embodiment. When the transistor 91A for the frightening device 90A has been turned on, the secondary counter, driven by the second Schmidt trigger oscillator 92, randomly turns on the transistors 91B, 91C and 91D. When the transistors are randomly turned on, the frightening devices 90B-90D are correspondingly actuated. Thus, when transistor 91A has been turned

on, indicating the presence of an offending animal species, *the first frightening device 90A is turned on and maintained while the remaining frightening devices 90B-90D are randomly cycled on and off.* Since the second counter of integrated circuit 85 runs continuously, the relative times of activation of each of the secondary frightening devices is random. (*emphasis* added)

Thus, it is seen that the timing and activation circuit 80 provides three elements of randomness to the generation of signals from a number of frightening devices. Particularly, the activation is delayed a random time period once the presence of the offending animal species has been detected. Next, the duration of activation of any one of the frightening devices is randomized. Finally, the sequence of actuation of the secondary frightening devices 90B-90D is also randomized. Thus, it is apparent that virtually any animal species would be incapable of becoming accustomed to the random operation of the electronic animal repellent apparatus 10 of the present invention. It should be apparent that the operation of the apparatus 10 need not be completely random, as in a mathematical sense. It is sufficient that the randomness of the delay, duration and sequence of activation of the frightening devices be sufficiently random to prevent the animal from becoming accustomed to the operation of the apparatus 10.

*Price et al.*, col. 6, line 55-col. 7, line 30. While *Price et al.*, purport to teach a random time interval, the time interval is selected from “approximately ten seconds, twenty seconds and forty seconds....” However, *Price et al.*, also teach the continuous transmission of the first frightening device while the remaining frightening devices are cycled on and off.

Modifying Lee by Price would yield a constant timing device with arbitrary intensity and signal duration, which is contra to the Lee. Such modified device would also continuously transmit a warning signal, and then simultaneously transmit a deterrent signal of randomly increasing and decreasing intensities. Alternatively, it may transmit a first deterrent signal for an extended period of time and then simultaneously transmit second deterrent signals of varied intensities and durations.

Lee teaches the variation in intensity in order to deliver the minimum required stimulus to the pet. Specifically, if the pet is stimulated but does not respond, the intensity is increased until an appropriate response is acquired. If the intensity were randomized, it is foreseeable that in a majority of cases, a stimulation signal with an intensity greater than that required will be delivered. This is especially true when Price *et al.* is literally read into the scope of Lee and the first deterrent signal is delivered over an extended period of time with second deterrent signals simultaneously transmitted.

To this extent, the frightening devices taught by Price *et al.*, are of a nature whereby they may be exerted for an extended period of time without causing harm to the animal. Further, they are of such a nature that they can be administered simultaneously, likewise with no ill effects. However, in the case of a correction stimulus delivered via a device worn by the animal, and typically an electric shock, it is not desirable to deliver a continuous correction signal, nor is it desirable to deliver more than one signal at a time. Accordingly, it is respectfully submitted that there is no “suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings.”

It is further respectfully submitted that there is no “reasonable expectation of success,” in that the resulting product as discussed above would not be useful, for reasons provided above.

Notwithstanding, Applicants have amended Claim 1 to read “a random time interval generator coupled with said correction signal generator and wherein said second sequence of correction signals is applied utilizing non-periodic time spacing intervals between each correction signal in said second sequence of correction signals in response to said random time interval generator.” It is respectfully submitted that Price *et al.* do not anticipate a non-periodic time spacing. Specifically, while Price *et al.* teach a random selection between three selected and periodic time spacings, they teach away

from the time spacings themselves being random and non-periodic. Accordingly, in view of the amendment to Claim 1, it is submitted that the rejections under 35 U.S.C. § 103(a) have been overcome.

## **Summary**

In view of the amendment of Claim 1, and the arguments presented herein, it is believed that the above-identified patent application is in a condition for the issuance of a Notice of Allowance. Such action by the examiner is respectfully requested. However, if the Examiner is of the opinion that the application is not allowable, as indicated above, it is requested that the finality of the present Office Action be reconsidered and withdrawn. In such case that the Examiner does not deem the present application allowable, it will be appreciated if the examiner will telephone the undersigned to expedite the prosecution of the application.

The Commissioner is authorized to charge any additional fees associated with this communication, or credit any overpayment, to Deposit Account No. 16-1910 (33271.00).

Respectfully submitted,  
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